

REMARKS/ARGUMENTS

Claims 1-5, 7-16 and 18-21 are pending in this application. Claims 1 and 16 are amended to more clearly recite applicant's device and method. Support for the claim amendments is found, *inter alia*, at p. 10, lines 9-16 of the specification and Fig. 4 filed with the application. Thus, there is no issue of new matter. Entry of the claim amendments into the file of the application is respectfully requested.

Claim Rejections Under 35 U.S.C. §112

Claims 1-5, 7-16 and 18-21 are rejected under 35 U.S.C. §112, second paragraph. The Office Action states with regard to this ground of rejection, "The applicants amended the claims to recite a horizontal seal. The amendment makes the claims indefinite because it is not clear what structure is required by the term "horizontal". It is noted that the specification is silent regarding the horizontal seal."

In response to this rejection, applicant has amended claims 1 and 16 to delete therefrom the term, "horizontal" and to, moreover, recite that the seal is located at a contact surface between the bottom of the treatment tank and the top of the pump circulation tank. The amendments to the subject claims are clearly supported by reading the last paragraph on p. 10 of the specification (lines 9-16) in conjunction with Fig. 4 of the application. The specification states, "The contact surface between [treatment] tank 1 and the pump circulation tanks 3 is closed in a gastight manner by means of seals 18." Fig. 4 thus clearly shows the positioning of "seals 18" between the bottom of the treatment tank (1) and the top of the pump circulation tanks (3). Clearly, therefore, the application as originally filed supports the amendments made to claims 1 and 16, which should, therefore, be entered.

Further to the above, claims 16, 18 and 19 are rejected under 35 U.S.C. §112, second paragraph because, according to the Office Action, "It is not clear what is required by the step of locating. Is this step requiring locating of the existing seal or installation of a new seal? It is noted that the specification is silent regarding "locating".

In response, applicants have amended claim 16 to change the word, “locating”, to “providing”. No new matter is deemed to be added by this amendment. Entry of the amendment is, therefore, respectfully requested.

In light of the amendments discussed above, the Examiner is respectfully requested to reconsider and withdraw all of the claim rejections under 35 U.S.C. §112, second paragraph.

Still further, claims 1-5, 7-16 and 18-21 are rejected under 35 U.S.C. §112, first paragraph, for allegedly failing to comply with the written description requirement of the statute. According to the Examiner’s comments at p. 3 of the Office Action, the rejection is based upon the recitation of “a horizontal seal” and the step of “locating” such seal in applicant’s claims. This rejection is respectfully traversed.

As noted above, applicant has now amended claims 1 and 16 to (a) delete the word “horizontal” and (b) change “locating” to “providing”. The claims as now amended are believed to meet all of the “written description” requirements of 35 U.S.C. §112 and the Examiner is, therefore, respectfully requested to reconsider and withdraw the rejection based on the subject statutory section.

Claim Rejections Based On 35 U.S.C. §103

The Office Action states in ¶6 on p. 3 that the rejection of claims 1-5, 7-16 and 18-21 made by Examiner El-Arini (the previous Examiner of this application) in the Office Action dated December 18, 2006 is maintained for the reasons of record. To briefly summarize, as indicated at, for example, ¶2 on p. 2 of the Office Action dated December 18, 2006, applicant’s claims 1-5, 7-16 and 18-21 are rejected under §103(a) as allegedly being unpatentable over Sylvain (USP 5,932,025) in combination with Wissmann et al. (USP 6,427,706), Pugh et al. (USP 5,566,694), Volz et al. (2004/0099292) and Ammermann et al. (USP 5,579,788). This rejection is, however, respectfully traversed by applicant for the reasons set forth below.

The primary reference cited against applicant’s claims is U.S. Patent No. 5,932,025 to Sylvain (“Sylvain”). This reference has been discussed extensively in applicant’s prior responses and those remarks are, thus, incorporated herein by reference.

Notwithstanding that applicant has amended claims 1 and 16 to delete the term “horizontal” from the recitation concerning the separate seal member (No. “18” in Fig. 4), it is

believed that the presence of, *inter alia*, the subject seal, provided as a separate element between the bottom of the treatment tank and the top of the [at least one] pump circulation tank, serves to distinguish applicant's claimed device and method over the reference. As is, furthermore, further recited in claims 1 and 16, applicant's seal serves to substantially prevent the escape of volatile constituents of the treatment liquid from the pump circulation tank.

The Sylvain reference teaches a tank having bottom 15 and side walls 16. As taught by the reference, the walls form a metallic enclosure 3 which is covered, on its interior surface, with a sealing layer 32 (formed, e.g., of rubber) and by a refractory coating 31. The reference notes, further, that the above-described design of the walls of the lower tank is "well-known", a statement with which the applicant agrees.

The only information which can be gleaned from Sylvain with regard to the sealing between the treatment tank and the lower (i.e., pump circulation) tank is that which can be abstracted from a review of Fig. 3 of the reference. The reference is, unfortunately, lacking in written detail with regard to any alleged 'sealing' occurring between the upper and lower tanks.

Referring to the Examiner's comments regarding the Sylvain patent on p. 4 of the present Office Action, taken together with the portion of the subject reference referred to by the Examiner in the Office Action (col. 3, lines 53-62), applicant submits that such comments are interpreted to mean that the Examiner believes that "seal 32" of Sylvain is the same as the "seal" element (i.e., designated with no. "18") recited in applicant's claims 1 and 16. This, however, is an interpretation with which the applicant respectfully disagrees for the reasons presented below.

If the Examiner's conclusion is correct, the arrangement described in the indicated portion of the (Sylvain) reference must exert a sealing function between the tub (4) and the wall (16). The reference, however, states that the refractory lining is removed to create a recess for the tub (4). This must mean that the bottom of tub (4) contacts the walls (16) at the refractory. However, as would be well known to one having an ordinary level of skill in this field, any contact at the side walls of the tub (4) should be avoided since such contact would likely act to damage the walls (16) or, at least the remainder of the sealing layer (32).

As applicant has previously argued in a prior response, a press fit of tub (4) of Sylvain into recess (33) is not possible without destroying the sealing layer (32). Furthermore, the above-described arrangement would not provide a gas-tight seal, in contrast to the seal recited in

applicant's claims 1 and 16. The actual function of sealing layer (32) in Sylvain is to protect the underlying metallic structure, in other words, to prevent direct contact between the metal which forms the enclosure and the treatment fluid, which would, otherwise, lead to the production of corrosion and, therefore, damage to the underlying metal structure.

An alternate 'type' of sealing that the reference may otherwise be referring to is a seal between the contact area at the bottom of the tub (4) and refractory layer (31). The formation of such a seal, however, would produce a significant disadvantage, however, since it is well known among those working in this field that (a) the mechanical strength of the refractory material used is low and, further, (b) that the refractory material will not form a gas-tight seal. The tub (4) would have to rest upon some type of supporting structure to keep its weight from damaging the refractory material. Since no such supporting structure is shown, or even suggested, by Sylvain and the 'type' of seal thus obtained would be one which is not gas-tight, it is perfectly clear that the reference is not referring to a seal of the 'type' taught for use by the applicant.

For the reasons above, therefore, applicant concludes that, in contrast to the method and device claimed in the present application, Sylvain does not address or solve in any way the formation of a gas-tight seal by the use of a separate sealing means. As to the presence of the seal as a "separate element" in the presently claimed device and method, applicant finds the Examiner's comment on p.4 of the Office Action to be confusing. The Examiner states, "The applicants [*sic.*, the applicant] further argue[s] that the seal is claimed as an element separate from the wall forming either of the tanks. First, it is not clear what is referenced because the claims are not limited to the argued limitation." This statement is respectfully traversed by applicant. In applicant's view, the "at least one seal" is clearly recited as being located between the two tanks, i.e., between the bottom of the treatment tank and the top of the pump circulation tank, which thus renders it a separate element (see, Fig. 4, item No. 18) located between the two tanks.

The existence of applicant's seal as such a 'separate element' thus aids in distinguishing the claimed arrangement still further from the arrangement described in Sylvain. As would be well known in this art, 'seals' of the type utilized by applicant are typically formed of a soft material which assures full contact between the upper and lower tanks by eliminating any gaps which may otherwise occur between the parts. Such seals are considered by those skilled in this

art to constitute ‘consumables’ which must be changed regularly to assure the safety of those individuals working in the vicinity of the device (i.e., due to the leakage of toxic and/or corrosive vapors which would otherwise occur in the absence of applicant’s seal element). This is not possible in the case of the arrangement described in Sylvain since, to access the seal described therein, one would be forced to remove the complete adjacent structure, including the refractory material. This is, however, not a problem with regard to the structure described in Sylvain since, as noted above, the Sylvain ‘seal’ is not constructed in the same manner as applicant’s seal, as it is intended to perform a completely different function than that recited in applicant’s claims. Thus, a difference in function leads, not unexpectedly, to a difference in structure and it is this structural difference between the two sealing arrangements (and not the difference in their use) which, applicant submits, serves to distinguish the present claims over the disclosure of Sylvain.

Based on the claim amendments and the remarks concerning the same set forth above, applicant respectfully submits that claims 1 and 16 are clearly distinguishable over Sylvain. Furthermore, as the remaining rejected claims all depend on one or the other of claims 1 and 16, and thus include all of the recitations contained in these ‘parent’ claims, the dependent claims are believed to be distinguishable for the same reasons as claims 1 and 16.

As indicated above, applicant recognizes that the rejection of applicant’s claims is not based solely upon the Sylvain reference, but rather upon Sylvain taken in combination with several additional “secondary” references, i.e., Wissmann et al. (USP 6,427,706), Pugh et al. (USP 5,566,694), Volz et al. (2004/0099292) and Ammermann et al. (USP 5,579,788). None of these references, however, contain any teaching or disclosure which would supply the elements of the presently claimed invention that are missing from Sylvain, notably (but not limited to) the sealing element recited in independent claims 1 and 16, i.e., all of the independent claims pending in this application. Each of these references are discussed in detail in applicant’s prior responses and those remarks are, thus, specifically incorporated by reference into this Amendment.

As indicated in the December 18, 2006 Office Action, Pugh et al. is cited due, *inter alia*, to its disclosure that the bottom surfaces of the tanks may be inclined in the direction of the run-off, while Volz is enlisted by the Examiner into the combination cited to reject the claims due to

its disclosure of tanks whose bottom surface is in the transverse direction from the movement of the 'workpiece'. Neither of these references contains any teaching or disclosure, however, with regard to the sealing element recited in applicant's claims. The same holds true with regard to the Wissmann et al. and Ammermann et al. references.

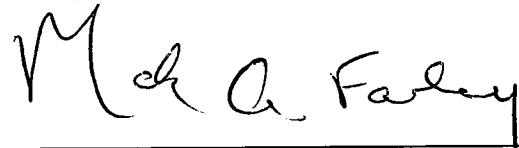
The Examiner is, therefore, respectfully requested to reconsider and withdraw the §103 rejection of applicant's claims over the cited combination of references.

Summary

Applicant submits that the claim amendments and arguments presented above are believed to be sufficient to overcome all of the grounds of rejection of the claims of the present application set forth in the Office Action. The Examiner is, therefore, respectfully requested to reconsider and withdraw these rejections and to pass the application through to issuance.

If the Examiner does not agree, however, and believes that an interview would further advance the progress of this application, he is invited to telephone applicant's representative at the number below in order that such an interview may, thereafter, be scheduled at the Examiner's convenience.

Respectfully submitted,



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